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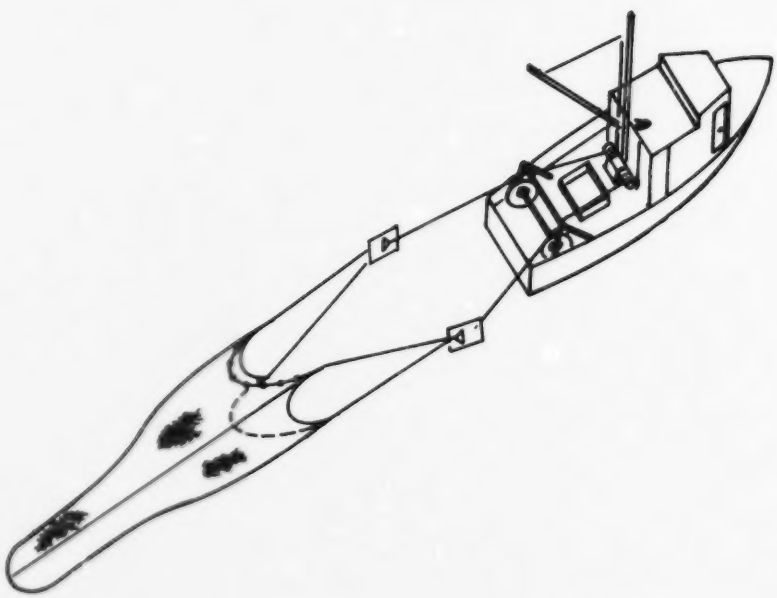
GOVERNMENT OF NEWFOUNDLAND AND LABRADOR
DEPARTMENT OF FISHERIES

OTTER TRAWLING DEVELOPMENTS ON THE NORTHEAST COAST OF NEWFOUNDLAND DURING 1981



DEVELOPMENT BRANCH REPORT NO. 28
OCTOBER, 1982

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Otter Trawling Developments on the Northeast Coast of Newfoundland During 1981

by

K. M. Mercer

FISHING OPERATIONS UNIT, DEVELOPMENT BRANCH

DEPARTMENT OF FISHERIES

ST. JOHN'S, NEWFOUNDLAND

OCTOBER, 1982

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INTRODUCTION

In 1979, the Department of Fisheries introduced a program to assist inshore fishermen* in developing efficient capabilities to harvest the projected increase in groundfish resources in NAFO areas 2J, 3KL. Otter trawling was one of the fishing methods selected for development assistance under the program which included the provision of technical advise and "on-the-job" training as well as the issuance of fishing gear on an experimental basis. Fishery surveys and actual fishing demonstrations were also conducted. Results of this development effort up to 1980 are compiled in a previous publication (Mercer and Sturge, 1981).

To date, otter trawling within the inshore sector of this NAFO area has not developed to any significant level. Many factors contribute to this outcome and the most obvious are: (1) lack of fish concentrations in suitable fishing areas and (2) lack of otter trawling experience on the part of the fishermen involved.

Despite these results to date, it is suggested that further research and development is necessary before the overall feasibility of inshore otter trawling can be determined. Consequently, in consideration of collecting a more complete data base and the requirement of continued assistance to the fishermen already involved the Department decided to continue the program during 1981.

*The term 'inshore fishermen' refers to fishermen using vessels less than 65ft. L.O.A.

This report provides an overview of the commercial inshore otter trawling effort in NAFO areas 2J and 3KL during 1981 and a general account of the Department's participation in defining suitable fishing grounds and in assisting otter trawler operators during their first year of operations.

PROCEDURE

The main criteria for fishermen to qualify for inclusion into this program included:

(1) The vessel and operator must be licensed (after 1979) to fish mobile gear in NAFO areas 2J, 3KL.

(2) The vessel's home port must be contiguous to NAFO areas 2J, 3KL.

(3) The vessel must be capable of conducting mobile fishing operations (i.e. suitable horse power, stability, etc.).

(4) The vessel must be suitably equipped with all necessary ondeck equipment (i.e. trawl winches, deck blocks, etc.).

At the outset, Department technologists inspected the vessel and advised the fishermen on appropriate equipment and fishing gear. Usually fishing gear was made available by the Department on an experimental basis. This period of loan was normally one (1) fishing season with an option for the operator to purchase otherwise it was returned to the Department.

Data sheets recording pertinent fishing information were completed daily and forwarded weekly to the Department.

In addition to private fishing operations, the Department owned vessel, M.V. Oderin, completed a short survey of selected areas in Notre Dame Bay recording bottom characteristics with the use of an echo sounder. Suitable bottom types determined by this method were further confirmed by actual fishing operations.

RESULTS

Commercial Effort (An Overview)

Table 1 lists the inshore dragger fleet licensed to operate on the N.E. coast during 1980. Fishing along the N.E. coast was generally poor during 1980 with catches not being sufficiently high to sustain operations.

In 1981, the season began in somewhat the same pattern; this was also reflected by the low catches recorded by fishermen engaged in other inshore fishing activities. Table 2 lists the vessels licensed to fish along the N.E. coast during 1981.

St. Anthony Area

One vessel fished briefly out of St. Anthony in the area from Little Belle Isle to Grey Islands recording low catches. The owner then made a decision to move to Labrador and conduct dragging operations there. Although he did go to Labrador his activity was confined to gillnetting only. Later in the year he informed the Department that he would not be conducting further dragging operations.

White Bay - Green Bay Area

When the fishing season began, two of the draggers operating out of La Scie (M.V. Cape John Venture and Lone Venture) fished for several weeks off Catalina before moving to Port au Choix area through a special arrangement to use the licenses of fishermen from the Straits area that were not currently active

Table 1: Fishing vessels involved in 1980 Otter trawling effort along the N.E. coast of Newfoundland.

Vessel	Home Port	Length	H. P.	Remarks
Penny Louise	Twillingate	52	230	Fishing N.E. Coast Area
Cape John Venture	La Scie	55	365	" " " "
Lone Venture	La Scie	55	260	" " " "
Atlantic Venture	King's Point	55	260	" " " "
Keith, Todd & C	O'Donnells	65	365	Fishing St. Mary's Bay Area
855-77	Admiral's Beach	55	250	" " " "
Cape Queen III	Trepassey	45	165	Pair Trawling Trepassey Bay Area
Isabel Anne Marie	Trepassey	45	165	" " " "

Table 2: Fishing vessels involved in 1981 Otter trawling effort along the N.E. coast of Newfoundland.

Vessel	Home Port	Length	H.P.	Activities
Cape Jolly Venture	La Scie	55	365	In Gulf Area
Lone Venture	La Scie	55	260	" " "
Atlantic Venture	King's Point	55	260	" " "
Penny Louise	Twillingate	52	230	No dragging in 1981, gear sold
Gulf Star	St. Anthony	52	180	Discontinued dragging in July, gear now for sale
Keith, Todd & C	O'Donnells	65	365	Fished regularly to November
#885-77	Admiral's Beach	55	250	Fished regularly to November, vessel & gear now for sale
Cape Queen III	Trepassey	45	165	For sale
Isabel Anne Marie	Trepassey	45	165	Ceased pair trawling, commenced gillneting in July
Saint Cecilia	Trepassey	65	-	Fished until August, now up for sale
Bear Cove Venture	Renews	65	-	No fishing in 1981, vessel now sold
Avalon Harvester	St. John's	65	-	No active fishing, trial fishing only
Ground Hog Gale	Trepassey	54	230	Replaced Cape Queen III, pair trawling until June, now up for sale

These two vessels remained there until the close of the fishing season.

A third vessel, M.V. Atlantic Venture, fished for crab in the White Bay area until June at which time it also proceeded to the Straits area again under special arrangement to fish using a vessel license from the Straits area.

Twillingate Area

The M.V. Penny Louise which actively fished with an otter trawl in 1980 reverted again to her previous activity of gill-netting and cod trapping. The dragging equipment was sold at the end of the season.

Trepassey - St. Mary's Bay Area

Fishing along the southern shore - St. Mary's Bay area has always been generally good during the spring and late summer, however, much of the good fishing areas have been within 3 miles of land. In a move designed to eliminate gear conflict situations, otter trawls were not permitted to fish in 3 designated areas along the southern shore and St.Mary's Bay during specified periods as follows:

Ferryland Head - Cape Ballard Area - (June 1 - Oct. 31)

Cape Race - Cape Mutton Area - (June 1 - Sept. 30)

Cape Pine - Cape English Area - (June 1 - Sept. 30)

This move severely restricted the viability of dragger operations, especially when cod moved onshore with a resultant drop in off-shore catches.

Pair Trawling

The two vessels, pair trawling out of Trepassey, fished from May - June landing approximately 60,000 lbs. of fish. The vessels used an IC pair trawl and fished between Cape Pine and Cape St. Mary's. The operation ceased due to mechanical problems, restrictions, etc. The owners do not anticipate continuing pair trawling, but will either otter trawl separately or cease trawling altogether.

M.V. St. Cecilia (owner and operator - Gerry Tobin)

Early in 1981, the M.V. St. Cecilia was placed in readiness for inshore dragging. Several types of trawls and doors were demonstrated during the fishing season which extended from April to end of July. Engine breakdown at that time forced a halt to further fishing, this has also resulted in a decision to sell the vessel.

Landings during a 3-month period April - June, totalled approximately 95,000 lbs. Areas fished were St. Mary's Bay and along the southern Avalon to Wolfall Banks. Except for a short fishing trial with a Yankee 36 type trawl, the vessel used a Concord trawl (57' X 75') with 7'6" wooden doors. In July, the last month of fishing, 12,000 lbs. of cod and flounder were landed.

M.V. #885-77 (owner and operator - Gus Dalton)

This vessel commenced fishing in April and continued throughout the summer until November. During that period, landings amounted to 355,568 lbs. of flounder and cod, the highest and lowest months respectively were 124,794 lbs. in May and 4,320 lbs. in September.

This was the second season dragging primarily in the St. Mary's Bay area. Since the changeover from a 55ft. longliner to larger dragger, considerable effort was made to make dragging a success. In 1980, low catches, high fuel costs, delays in discharging catch, engine problems, and gear loss all contributed to a decision by the owner to discontinue dragging and sell the vessel.

Other Effort

During 1981, one 65ft. vessel fished for both pelagic and groundfish. From January to June, 230,000 pounds of herring and 600,000 pounds of caplin were landed.

The groundfish effort by bottom trawling occurred during the month of May when the vessel landed 20,000 lbs. of cod and 80,000 lbs. of flounder. From July until November 300,000 lbs. of cod and flounder were landed.

The fishing effort was concentrated on the southern Avalon area, however, recent regulations prohibiting mobile gear within 3 miles of land eliminated much of the area where they had successfully fished in previous years.

Exploratory Fishing

M.V. Gulf Star

During the 10 fishing day period, the M.V. Gulf Star fished from Cape Bauld to the Grey Islands, landing a total of 5,800 lbs. of cod and flounder. The areas fished in 1981, as shown in Figure 1, have been added to the information obtained during the 1980 survey (Figure 2).

M.V. Oderin

The M.V. Oderin* completed 6 fishing days during the period August 20 to September 3. The area fished extended from Bonavista to White Bay. Poor fishing was experienced as evidenced by a total landing of 3,500 lbs. Information obtained on bottom suitability for dragging as shown in Figure 1 supplemented information recorded during the 1980 groundfish survey.

Fishing Gear Trials

During the early pioneer efforts by inshore draggers in Nfld., the doors were usually rectangular and of wooden construction. Gradually, some of the vessels followed the lead of the larger draggers and changed to the versatile V-Steel doors. One desirable feature of the door was its ability to maneuver over rough bottom and boulders and to

*A 65ft. inshore otter trawler owned and operated by the Department.

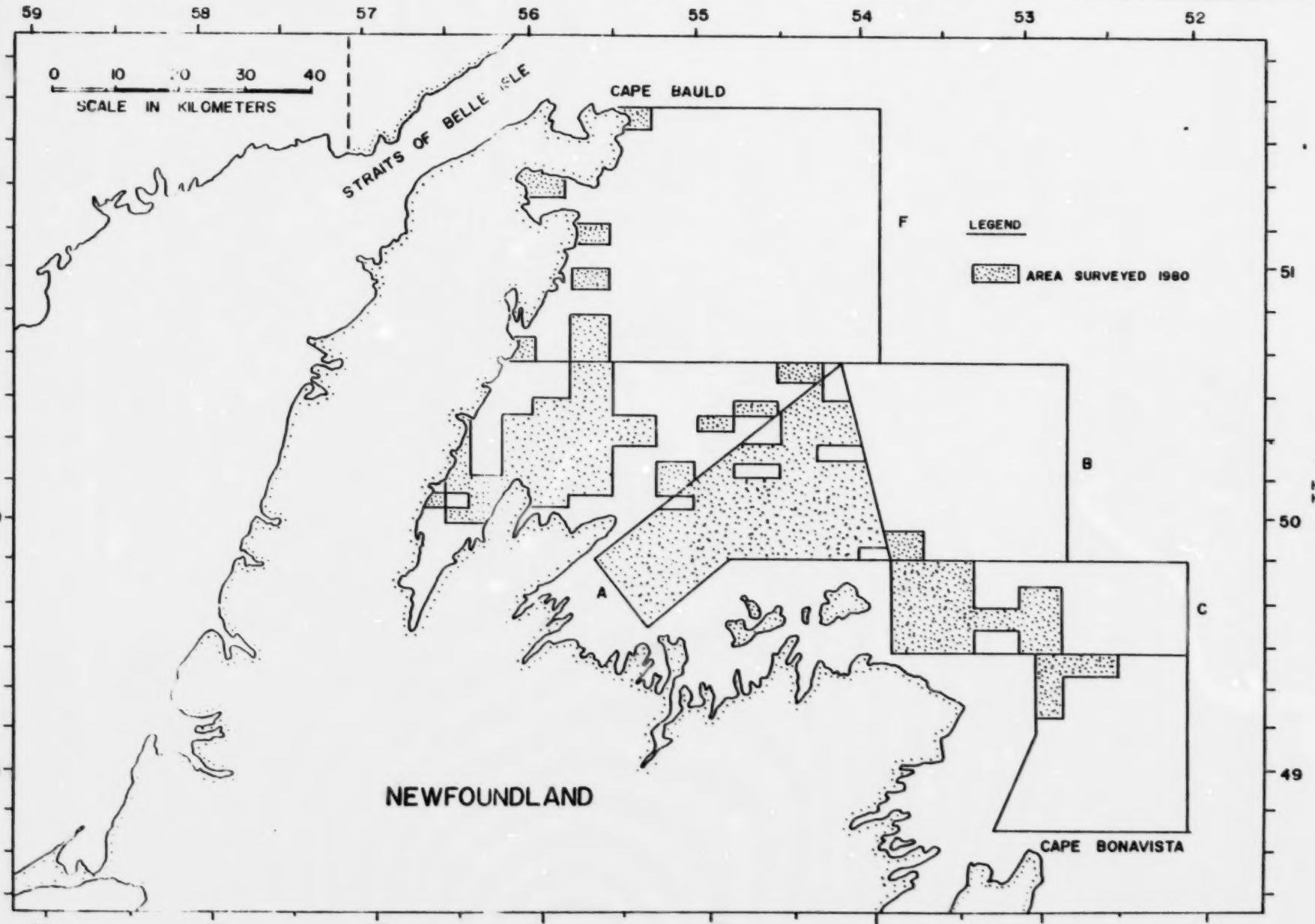

Figure 1. Exploratory Fishing on the Northeast Coast During 1980.

JW

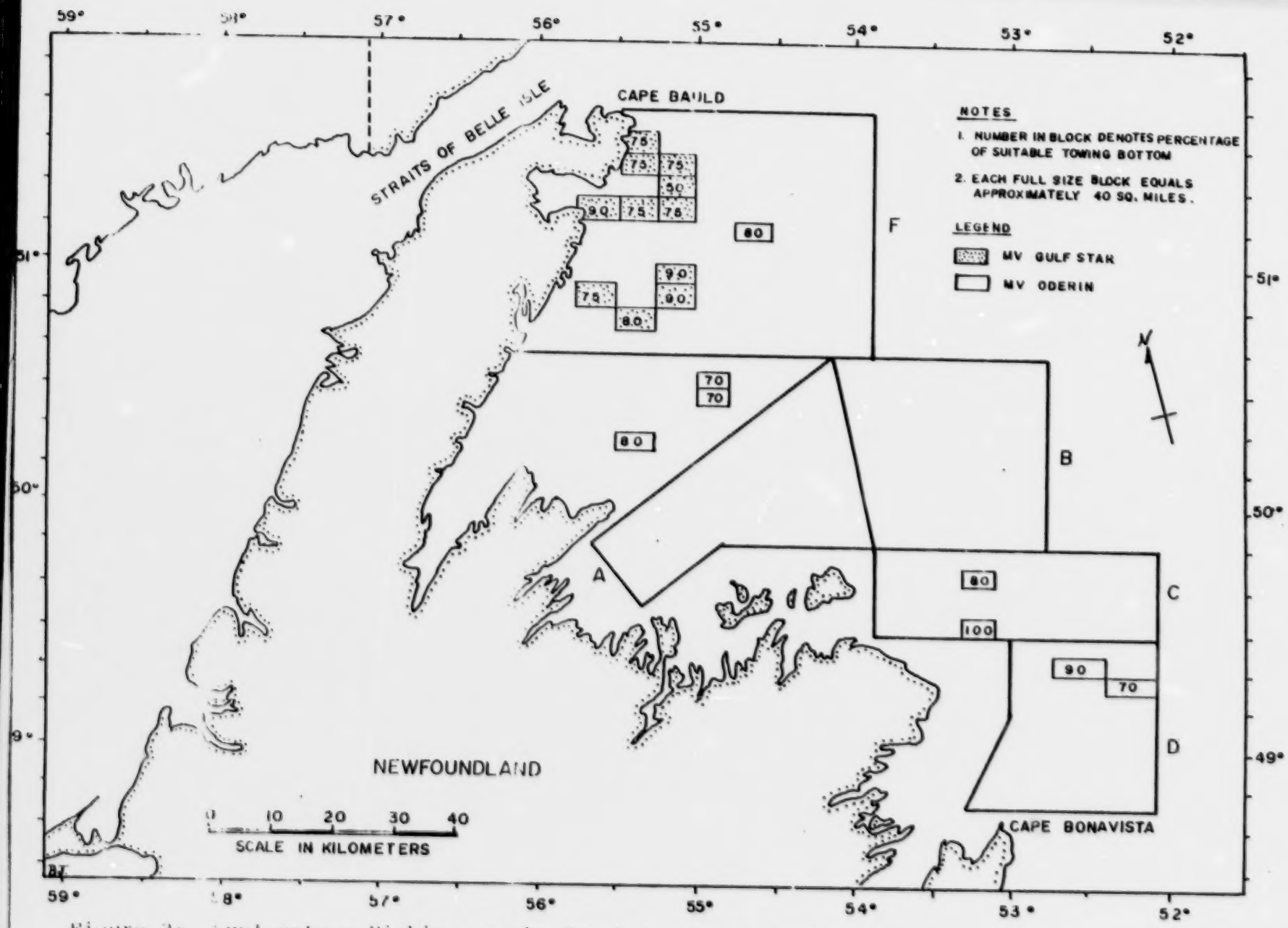

Figure 2: Exploratory Fishing on the Northeast Coast During 1981.

When prospective dragger operators on the N.E. coast requested the Department to advise them on fishing gear, one of the recommendations given them was to use the V-Steel door. Available reports from Europe and elsewhere suggested that this type performed well and had good durability.

Poor results were obtained by these N.E. coast inshore draggers; this, the Department feels was due to the lack of fish and not through any fault in the gear. These vessel owners, however, were convinced by dragger operators in the Gulf area (who themselves had switched to wooden doors) that the problem was with the use of steel doors. As a result, in 1981, practically all inshore draggers around the Island were using rectangular wooden doors.

Because of this controversy regarding the merits of each type of door, the Department arranged a limited trial involving the use of 2 types of doors on the M.V. #885-77 in St. Mary's Bay. Lack of Departmental funding for this project coupled with vessel owner financial difficulties resulted in tests being limited to 4 days. The results gathered in Table 3 shows, generally, that for a vessel fishing the same type of trawl and in the same area at depths of 60 - 70 ftms. the type of door did not make any appreciable difference.

Table 3: Record of fishing trials using steel and wooden doors in St. Mary's Bay, 1981

Date	Door Type	Net Spread (feet)	Effort (hrs.)	Catch (lbs.)	Yield/ Hour (lbs.)
Nov. 10/81	Wooden	81	6.75	3100	460
11/81	Steel	88	8.80	4100	466
13/81	Wooden	78	10.75	6350	590
14/81	Steel	89	10.50	6400	610

Average catch per hour - Steel doors - 544 lbs.

Average catch per hour - Wooden doors - 540 lbs.

Trawl Types

During a Quality Enhancement Program conducted in the Straits area the M.V. Oderin was equipped with an IC #350 bottom trawl. This was one of the types in use by 65 foot inshore draggers in that area. After a week of fishing which involved constant tearups it was felt that the vessel could not properly control such a large trawl; consequently, it was replaced by a smaller IC 300. The latter trawl was used for the remainder of the survey and later on for exploratory fishing along the Northeast Coast and proved to be most satisfactory.

Fishermen often change in their preference for types of trawls and currently it appears that the IC models are favoured more than the Concord trawls. The Department

issued a Concord trawl* on a trial basis to the M.V. St. Cecilia after it lost its own trawl. For the next two months, until operations ceased due to engine trouble, this trawl recorded daily catches up to 37,000 lbs. per day (Table 4). Although no other vessels were in the area with other types of trawls, the skipper was quite pleased with the trawl performance.

Date	Area Fished	No. of Tows	Catch (lbs.)		
			Cod	Flounder	Daily Total
12-3-81	St. Mary's	5	5,000	6,000	11,000
24-3-81	" "	5	10,000	27,000	37,000
8-4-81	Lambs Rock	3	6,000	6,340	12,340
10-5-81	St. Mary's	2	2,000	9,000	11,000
14-5-81	Northern Rock	2	9,000	11,000	20,000
					Engine Problems
20-5-81	" "	2	11,000	13,000	24,000
26-5-81	" "	3	12,000	18,000	30,000
10-6-81	St. Mary's Bay	1	2,000	9,000	11,000
13-6-81-20-6-81			5,462	12,423	18,065
30-6-81-2-7-81			6,000	6,000	12,000

Table 4: Partial Report of Landings of M.V. "St. Cecilia", 1981.

*This trawl had previously been demonstrated on one of the inshore draggers fishing out of La Scie and the owner opted for replacing it with an IC Model.

DISCUSSION

Review of Dragging Effort on the Northeast Coast

In 1979 inshore dragging activities were confined to the southern Avalon. Increased activity by 4 new vessels in 1980 failed to affirm their operational viability along the Northeast Coast. The southern Avalon was the only area where inshore draggers obtained sufficient catches to cover expenses. Although two new vessels actively fished in this area during 1981, the overall dragging effort was reduced by some of the existing fleet moving to the Straits or ceasing dragging altogether. Of the eight inshore draggers licensed for the Northeast Coast, five vessels or their equipment are sold or up for sale.

Fishermen already involved or contemplating involvement in otter trawling on the Northeast Coast, now realize that the outlook for a successful fishery is dim. Factors such as: (1) licensing policies*, (2) low catches and (3) skyrocketing operational costs have forced fishermen to the edge of bankruptcy or alternatively to try to salvage their investment by obtaining a temporary license to fish in the lucrative Gulf area. Many of these fishermen, having no prior history in dragging, have acquired vessels in excess of one half-million dollars and are experiencing pressure to obtain sufficient catches to offset heavy expenditures.

*Northeast Coast vessel owners can only obtain a license to fish in 2J, 3KL.

Given the fishing conditions that have occurred during the past several years, it is apparent that an inshore dragger cannot survive under the present regulatory restrictions.

The commercial fishing effort coupled with the Provincial and Federal exploratory effort along the Northeast Coast have not identified any commercial fish stocks that are in range of the inshore draggers. Extensive areas of good dragging bottom have been defined and undoubtedly in time these vessels will, during certain times of the year, obtain good catches. These vessels, if they are to continue fishing, must be given the opportunity to harvest the more lucrative developed areas to supplement their earnings.

Economics of the Northeast Inshore Dragger

The cost of equipping and operating a fishing vessel in recent years, has escalated so much that consistently good catches over a longer fishing period must be realized to offset heavy expenditures. Almost all of the present Northeast Coast inshore dragger fleet has been purchased within the past 4 years; requiring the owners to make substantial annual payments on their loan.

It is worthwhile, therefore, to consider the economics of a typical dragger operation along the coast with a fishing season of approximately 8 months.

The average vessel cost (based on the present Northeast Coast inshore dragger fleet) is $500,000 (Table 5). Available

Table 5: Financial obligations undertaken by fishermen on N.E. coast who have invested in Inshore Draggers 1978-1980.

Fishing Vessel	Year Registered	Vessel Value	Equipment Value	Federal Subsidy	Provincial Subsidy or Grant	Loan Obtained from Fisheries Loan Board
A	1978	591,424	49,000	-	295,000	$266,141
B	1980	315,000	85,000	110,000	47,000	$141,500
C	1980	270,600	78,000	94,500 21,840	40,000	121,499 78,000
D	1980	353,255	50,000(est)	98,985	52,000	161,071
E	1978	526,411	50,000(est)	-	262,206	242,286
F	1980	631,000	50,000	-	94,000	496,000
Total		2,687,090	362,000			

Federal and/or Provincial subsidies plus the required 5% down payment reduces the owners obligation to the F.L.B. of approximately $266,000 payable over a 10 year period (Table 6).

Table 6: Average vessel loan obtained by fishermen through the Fisheries Loan Board and amortized at 6% over 10 years.

	Principal Balance	Interest	Principal	Total Annual Payment
Year 1	$266,000	$15,960	$26,600	$42,560
2	239,400	14,364	26,600	40,964
3	212,800	12,768	26,600	39,368
4	186,200	11,172	26,000	37,772
5	159,600	9,576	26,000	36,176
6	133,000	7,980	26,000	34,580
7	106,400	6,384	26,000	32,984
8	79,800	4,788	26,000	31,388
9	53,200	3,192	26,000	29,792
10	26,000	1,596	26,000	28,196

The following lists are what are considered to be average yearly expenses that would normally be incurred by an operator entering the inshore dragger fishery:

Expenses

Repayment of Principal and interest (ave. yearly over 10 years)	$35,378
Insurance	4,000
Refit and Maintenance	8,000
Operational expenses (fuel, ice, etc.)	60,000
Salary equivalent (5 crewmen for 8 mo.)	60,000
	$197,378

Revenue

Projected landings would be expected to consist mainly of cod and smaller amounts of flounder, turbot and redfish.

Based on an average price of 18 cents per pound, the breakeven point would require approximately one million pounds.

If the Northeast Coast inshore dragging operation is to succeed, then the operator must adhere to the following basics in fishery economics:

1. There must be sufficient working capital to enable the vessel to operate and search out fish stocks during the periods of low landings. Quite often operators cannot purchase fuel to go out in search of fish, thereby, losing an opportunity to increase his landings.

2. Allow sufficient funds to ensure that the vessel is kept in proper working condition. If after several years, worn and broken equipment is not replaced, costly delays result during the good fishing season.

3. Where possible the vessel should be productive year round or a minimum of 9 months. Presently, it appears that UIC benefits and restrictive licensing are the cause for longer than required winter tie ups.

Types of Gear Used

Almost all inshore draggers over the past several years have moved to the Concord or the IC Trawl; the latter now presently being the more popular.

A similar change has occurred with the use of trawl doors. In other countries, notably Europe, the steel door is widely used, however, in Newfoundland inshore dragger operators have gradually reverted to the flat rectangular wooden door that was used previous to the introduction of the steel door.

Many fishermen feel strongly that the wooden doors are superior to the steel and they have, no doubt, influenced newcomers to the fishery to use that type.

Department technical staff feel that the steel door will "stand up" to wear and tear and will also perform well. Information from 4-day testing in St. Mary's Bay confirmed this belief, however, further testing in both shallow and deep waters is required before the matter can be clarified.

SUMMARY

In 1980, the Department continued exploratory fishing along the Northeast Coast to define suitable fishing grounds. It also provided specialized gear and technical assistance to several commercial inshore draggers in their efforts to fish successfully in this area.

The M.V. Oderin completed a short fishing survey of selected areas of Notre Dame Bay to supplement fishing data obtained in the 1980 survey.

Low catches were recorded on the Northeast Coast by inshore draggers as well as inshore fixed gear.

All inshore draggers on the Northeast Coast, with the exception of those in St. Mary's Bay area, ceased fishing or moved to the Straits area under a temporary license.

Inshore draggers operating in St. Mary's Bay - Trepassey area were hurt by regulations prohibiting them from fishing in designated areas within 3 miles of land.

Limited tests were conducted to determine the efficiency of steel versus wooden doors. Initial tests indicated no difference in the two types when fishing in the same area and same depth of water.

The combined commercial, Provincial and Federal inshore dragging effort along the Northeast Coast have not identified any fish stocks that [illegible] commercial exploitation. It appears that these vessels must be allowed to fish in other areas to supplement catches obtained on the Northeast Coast.

It has been calculated that an inshore dragger operating along the Northeast Coast would have to land one million pounds of fish per year to reach the "breakeven" point.

REFERENCES

Mercer, K.M. and D.R. Sturge. Otter Trawling Developments on the Northeast Coast of Newfoundland During 1980. Department of Fisheries, Development Branch Report #22, February, 1981.

APPENDIX A

Daily Operational Reports - M.V. Oderin

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL Odessin

TRAWL TYPE CODE:
T1 = IC 300
T2 =
T3 =
NOTE: ONE COMPLETE TRAWL OF EACH TRAWL NET MUST BE USED

DAY	MONTH	YEAR
19	August	81

PORT:
DEPARTURE:
ARRIVAL:

	LOCATION	TIMES (HS) NET SET	DRAGGED	SPACED	EMPTY	SELECTION (")	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1	49° [illegible] 53° 35W	0900	3.5	100	1007	225	15	75	200	1550		Nil	Nil
2	49° [illegible] 53° 35W	1130	2.0	12[illegible]	1228	45	15	85	225	1550		100	Nil
3													
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

All flounder was too small and we had to dump them.

GEAR TECH

[illegible] 1: SPECIES & WEIGHT IN POUNDS

	Flounder	[illegible] Cod					
1	3,000 LBS	50 LBS	LBS	LBS	LBS	LBS
2	2,000 "	"	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	LBS	LBS	LBS	LBS	LBS	LBS

S. Barbour
SKIPPER

NOTE: DATA AND THERMOGRAPH RELATED TO EACH [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL Oberin

TRAWL TYPE CODE:
T1 = IC 300
T2 =
T3 =
NOTE: ONE CONCRETE PLAN OF EACH TRAWL NET NEEDED.

DAY	MONTH	YEAR
21	August	1981

PORT:
DEPARTURE:
ARRIVAL:

TIMES (HE)

	LOCATION	NET SET	DRAGGED	SURFACED	EMPTY	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1	49° 42N, 53° 40W	1010	-5	1040	1049	70	15	70	200	1550		Nil 80	Nil
2													
3													
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

GEAR TECH.

CATCH: Species & Weight in Pounds

1	Lbs	- Lbs	Lbs	Lbs	Lbs	Lbs
2		-	-	-	-	-
3		-	-	-	-	-
4		-	-	-	-	-
5		-	-	-	-	-
6		-	-	-	-	-
7		-	-	-	-	-
8		-	-	-	-	-
9		-	-	-	-	-
10		-	-	-	-	-
	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs

SKIPPER

NOTE: BATCH AND NUMBERED ECHOGRAPH RECEIVED TO EACH TOW TO BE SUBMITTED

Department of Fisheries

Experimental Commercial Fishing

Motor Vessel Odessa

Trawl Type Code:
T1 = IC 300
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

Day	Month	Year
24	August	1981

Port:
Departure:
Arrival:

Times (HS)

	Set No. and Location	Net Set	Dragged	Surfaced	Empty	Size of Station	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
1	49° 21N 52° 51W	1130	2.0	1330	Nil	170	16	160	425	76		Mud 90	Nil
2	49° 19N 52° 41W	1430	.25	1437	Nil	225	15	70	425	1450		Mud 70	Nil
3													
4													
5													
6													
7													
8													
9													
10													

Catch: Species & Weight in Pounds

1	Nil lbs	Nil lbs	lbs	lbs	lbs	lbs
2	Nil "	Nil "	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

Gear Remarks:

It was no sign of fish and it was a lot of fishing gear in the water.

Gear Tech.

Skipper

NOTE: Catch and Numbered Echograph Related to Each Tow to be Completed

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL Ocean Ain

TRAWL TYPE CODE:	DAY	MONTH	YEAR
T1 = IC 300	30	August	1981
T2 =	PORT:		
T3 =	DEPARTURE:		
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED	ARRIVAL:		

No. of Tow	Location	Times (HR): Net Set	Dragged	Surfaced	Empty	Course (°)	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
1.	51°2 'N 55°08'W	0805	.75	08'..	Nil	235	15	140	325	1550		Rocky	80%
2.													
3.													
4.													
5.													
6.													
7.													
8.													
9.													
10.													

GEAR REMARKS:

It was alot of fishing gear in the water and it was high winds.

GEAR TECH.

Catch: Species & Weight in Pounds

1	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs
2	"	"	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs

SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE SUBMITTED SEPARATELY

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL Glerin

TRAWL TYPE CODE:
T1 = IC 300
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
2	September	1981

PORT:
DEPARTURE:
ARRIVAL:

TIMES (HR)

	LOCATION	NET SET	DRAGGED	SURFACED	EMPTY	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1	50°31'N 56°01W	1025	1.3	1155	230	15	142	375	1550			Rocky	80%
2	50°24'N 56°16W	1245	1.0	1354	225	15	130	325	1550			Mud	80%
3													
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

We had a small hole in the belly so we mended it.

GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

	Tow 1	Flounder	Tow 3	Tow 4	Tow 5	Tow 6
1	165	80 lbs	lbs	lbs	lbs	lbs
2		10				
3						
4						
5						
6						
7						
8						
9						
10						
		90 lbs	lbs	lbs	lbs	lbs

SKIPPER

NOTE: BATCH AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL Odrin

TRAWL TYPE CODE:
T1 = IC 300
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
3	September	1981

PORT:
DEPARTURE:
ARRIVAL:

TIMES: (HR)

No. of Tow	Location	Net Set	Dragged	Surfaced	Empty	Direction°	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
1	49° 36'N 55° 08W	1215	1.0	13	Nil	190	15	100	250	1550		Rocky	
2	49° 24'N 55° 07W	1345	1.0	14	1455	210	15	165	400	1600		Rocky	
3													
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

We made two tows and it was no sign of fish.

GEAR TECH

CATCH: SPECIES & WEIGHT IN POUNDS

No. of Tow	Total Lbs	Flounder Lbs					
1	30	20					
2							
3							
4							
5							
6							
7							
8							
9							
10							
	30 Lbs	20 Lbs					

SKIPPER

NOTE: BATCH AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE [illegible]

APPENDIX B

Daily Operational Reports - M.V. #885-77

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL 885-

TRAWL TYPE CODE:	DAY	MONTH	YEAR
T1 = Concord 57' X 75'	10	Nov.	81
T2 =	PORT:	Admiral's Beach	
T3 =	DEPARTURE:	1200 hrs.	
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED	ARRIVAL:	2230 hrs.	

No. OF TOW	LOCATION	TIMES (HS) NET SET	DRAGGED	SURFACED	EMPTY	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1		1250	1.5			SSW		55	150	1650			
2		1500	1.25			SW/W		50	150	1650			
3		1645	2.0			NE/E		65	200	1650			
4		1920	2.0			NE		65	200	1650			
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

We used 7' X 4' wooden rectangular doors today and they seemed to work very well. They marked the shoes very well. We tested the spread of the doors and found that they had 81ft spread using 10 ftms ground warps. The net seemed to be working good because it picked up rocks and crab and starfish, etc. There were strong SW winds all morning but it moderated afternoon.

Roland Sesk

GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

FISH	SHELL	CRAB			
600 LBS	750 LBS	LBS	LB	LB	LBS
250 "	300 "	"	"	"	"
500 "	100 "	"	"	"	"
600 "	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
LBS	LBS	LBS	LBS	LBS	LBS

Locations:

1. Light (Colonet Is)
2. 4 miles (Cape English) 6 miles (Shaq Rocks)
3. 6 miles (Cape English) 6 miles (Shaq Rocks)
4. 8 miles SW of Colonet Island

SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE COMPLETED WHEREVER POSSIBLE

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL 88-77

TRAWL TYPE CODE:
T1 = Concord 57' X 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
11	Nov.	81

PORT: Admiral's Beach
DEPARTURE: 0730 hrs.
ARRIVAL: 2145 hrs.

TIMES (PST)

LOCATION	SET SET	DRAGGED	FACED	EMPTY	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
	0830	2.0		SSW	65	225	1650					
	1050	1.6		SSW	65	225	1650					
	1300	1.5		SSW	55	150	1650					
	1510	1.5		SSW	65	225	1650					
	1700	.6		NE/E	65	225	1650					
	1845	1.5		NE	65	225	1650					

GEAR REMARKS:

We used a set of 7'6" X 4'6" V-Steel doors today. They each weighed 750 lbs. These doors seemed to work well also. They shined up the shoe perfect and handled well. We tested the spread of the doors today under the same conditions as the wooden ones yesterday and these doors spread the trawl 88ft. We never picked up any marks on the sounder.

Roland Sess
GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

Planned						
1050 lbs	50 lbs	lbs	lbs	lbs	lbs	
450 "	50 "	"	"	"	"	
900 "	100 "	"	"	"	"	
450 "	150 "	"	"	"	"	
150 "	"	"	"	"	"	
750 "	"	"	"	"	"	
"	"	"	"	"	"	
"	"	"	"	"	"	
"	"	"	"	"	"	
"	"	"	"	"	"	
lbs	lbs	lbs	lbs	lbs	lbs	

Locations:

1. 2 miles SSW from CRAFO
2. 6 miles SW Colonet Island
3. Light off Colonet Island
4. 4 miles Cape English, 6 miles Colonet Island
5. 6 miles Shag Rocks, 5 miles Cape English
6. 8 miles SW Colonet Island

SKIPPER

NOTE: DATES AND NUMBERED ECHOGRAPH RELATE TO EACH TOW TO BE CORRELATED WHENEVER POSSIBLE

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL 88-77

TRAWL TYPE CODE:
T1 = Concord 57' X 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
12	Nov.	81

PORT: Admiral's Beach
DEPARTURE:
ARRIVAL:

TIMES (HS)

NO. OF TOW	LOCATION	NET SET	DRAGGED	SURFACED	EMPTY	COLLECTION	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
			NO FISHIN	DONE									

GEAR REMARKS:

There was strong NE winds of about 40-45mph today. We never got any fishing done but we hauled the net of the drum and checked it over We measured all the bridles, footgear and headrope but everything was O.K. We changed over from V-Steel to the wooden doors for tomorrow.

Rolan[illegible] Sess
GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

LBS	LBS	LBS	LBS	LBS	LBS
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
"	"	-"	-"	-"	-"
LBS	LBS	LBS	LBS	LBS	LBS

SKIPPER

NOTE: DATED AND NUMBERED LOGGRAPH RELATED TO EACH TOW TO BE [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL 885-7

TRAWL TYPE CODE:
T1 = Concord 57' X 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
13	November	1981

PORT: Admiral's Beach
DEPARTURE: 0630 hrs.
ARRIVAL: 2200 hrs.

TIMES: (HS)

TOW NO.	LOCATION	NET SET	DRAGGED	SPACED	EMPTY	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1		0810	2.0			SSW	65	200	1650				
2		1040	2.0			NNE	65	200	1650				
3		1300	2.0			SSW	65	200	1650				
4		1530	2.0			E/N	65	200	1650				
5		1745	1.5			W/S	65	200	1650				
6		1930	1.25			E/N	65	200	1650				

GEAR REMARKS:

We used the 7' rectangular wooden doors today and found the same results as on November 10th. The doors seemed to work well enough. We tested the spread again and found they spread 78ft. The weather was perfect today.

Roland Sesk
GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

TOW NO.	FISH	SQUID	PRAWNS			
1	100 lbs	lbs	lbs	lbs	lbs	lbs
2	100 "	"	"	"	"	"
3	150 "	"	"	"	"	"
4	50 "	"	"	"	"	"
5	— "	"	"	"	"	"
6	— "	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. Light (Colonet Island)
2. 6½ miles SW Light (Colonet Island)
3. Light on Colonet Island
4. 7 miles SW/W Colonet Island
5. 4 miles East of Crabo
6. 5 miles SW/W Colonet Island

SKIPPER

NOTE: BATCH AND NUMBERED LOGGRAPH RELEASED TO EACH TOW TO BE SUBMITTED WHENEVER TOW OCCURS

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL 885-

TRAWL TYPE CODE:
T1 = Concord 52' x 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
14	November	1981

PORT: Admiral's Beach
DEPARTURE: 0515 hrs.
ARRIVAL: 2030 hrs.

TIMES (HS)

NO. OF TOW	LOCATION	1ST SET	DRAGGED	HAULED	EMPTY	DIRECTION(S)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
		0610	2.0			SSW		65	200	1650			
		0845	2.0			E/N		65	200	1650			
		1110	2.0			SW/W		65	200	1650			
		1330	1.75			E/N		65	200	1650			
		1545	1.25			E		65	200	1650			
		1730	1.5			E		65	200	1650			

GEAR REMARKS:

Today the weather was perfect, again we used the V-Steel doors today. As before they seemed to work O.K. We tested the spread again and got 89ft. The V-Steel doors seem to spread the trawl a bit more.

GEAR TECH.

CATCHES & WEIGHT IN POUNDS

100 lbs	150 lbs	lbs	lbs	lbs	lbs
100 "	300 "	-"-	-"-	-"-	-"-
100 "	100 "	-"-	-"-	-"-	-"-
100 "	50 "	-"-	-"-	-"-	-"-
1,000 "	150 "	-"-	-"-	-"-	-"-
100 "	— "	-"-	-"-	-"-	-"-
"	— "	-"-	-"-	-"-	-"-
"	— "	-"-	-"-	-"-	-"-
"	— "	-"-	-"-	-"-	-"-
"	— "	-"-	-"-	-"-	-"-
lbs	lbs	lbs	lbs	lbs	lbs

1. Light (Colonet Island)
2. 6 miles SSW Light Colonet Island
3. ½ miles SE Light Colonet Island
4. 8 miles SW Light (Colonet Island)
5. 4 miles S Light Colonet Island
6. 5½ miles SW Colonet Island

SKIPPER

NOTE: DATED AND NUMBERED PHOTOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER POSSIBLE

Department of Fisheries

Experimental Commercial Fishing

Motor Vessel M.V. [illegible]-77

Trawl Type Code:
T1 = Concord 57' X 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

Day	Month	Year
16	November	1981

Port: Admiral's Beach
Departure: 0730 hrs.
Arrival: 2215 hrs.

No. of Tow	Location	Times (Hrs) Net Set	Dragged	Hauled	Empty	Direction(s)	Depth of Net	Length of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
		0820	2.0	1030		SW	65	225	Full			Good	
		1320	2.0	1530		WBS	70	250	Full			Good	
		1610	2.0	1820		ENE	70	275	Full			Good	
		1940	2.0	2150		WSW	70	275	Full			Good	

Gear Remarks:

V-Steel doors(7ft 6) seems to work very well, taking the bottom good and have good horizontal spread on gear. It would be a good idea if we could add 150 lbs. to shoe as recommended by Nordco and then have another try.

Had man hurt, returned to port and took man to doctor and then sailed again.

A. Kelly
Gear Tech.

Catch in Pounds & Weight in Pounds

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
800 lbs	200 lbs	lbs	lbs	lbs	lbs	lbs
1,000 "	500 "	"	"	"	"	"
1,000 "	100 "	"	"	"	"	"
1,200 "	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
lbs	lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. 2¼ SW Colonet Fairway
2. 3 miles from Freapeau
3. 3 miles from Freapeau
4. 3 miles from Freapeau

Gus Dalton
Skipper

NOTE: Dated and numbered Echograph Record to Each Tow To Be Submitted Where [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL M.V. [illegible]-77

TRAWL TYPE CODE:
T1 = Concord 57' X 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
18	Nov.	81

PORT: Admiral's Beach
DEPARTURE: 0930 hrs.
ARRIVAL: 2000 hrs.

TOW NO.	LOCATION	TIME SET	TIME DRAGGED	DISTANCE TRAVELED (MI)	EMPTY OR FULL	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
		1025	2.0	123	WSW	75	75	250	Full				
		1145	2.0	1530	WSW	75	75	275	Full				

GEAR REMARKS:

Doors hit on bottom, no fish. Added 25 fathoms more warp, still doors hit on bottom.

Concord hit too heavy for those IC V-Steel doors 6ft 6 [illegible] spread.

Returned to port and pu[illegible] 7ft wooden doors onboard and lande[illegible] V-Steel IC

A. [illegible]
GEAR TECH.

CATCH: Species & Weight in Pounds

TOW NO.	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	165	[illegible]	[illegible]	[illegible]
2	"	"	-0-	"	-0-	-0-
3	"	"	-0-	-0-	-0-	-0-
4	"	"	-0-	-0-	-0-	-0-
5	"	"	-0-	-0-	-0-	-0-
6	"	"	-0-	-0-	-0-	-0-
7	"	"	-0-	-0-	-0-	-0-
8	"	"	-0-	-0-	-0-	-0-
9	"	"	-0-	-0-	-0-	-0-
10	"	"	-0-	-0-	-0-	-0-
[illegible]	[illegible]	[illegible]	165	[illegible]	[illegible]	[illegible]

Locations:

1. 3 miles WSW of Freapeau Point
2. 3 miles WSW of Freapeau Point

Gus Dalton
SKIPPER

NOTE: DEPTH AND TEMPERATURE THERMOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHERE [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL 885-7

TRAWL TYPE CODE:
T1 = Concord 57' X 75'
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
19	November	1981

PORT: Admiral's Beach
DEPARTURE: 1445 hrs.
ARRIVAL: 1800 hrs.

TIMES (HS)

LOCATION	SET	DRAGGED	HAULED	DIRECTION	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIRE DIRECTION & SCALE	BOTTOM TYPE	TRAWL JAMMED
1	1520	1.5	1700	W							

GEAR REMARKS:

Never had any fish only dozen or so cod fish and a basket of flounder.

A. Kelly
GEAR TECH.

SPECIES & WEIGHT IN POUNDS

	Location					
1	Codfish	40 lbs	lbs	lbs	lbs	lbs
2	"	"	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

7ft wooden doors take the bottom very well and also gives good horizontal spread to net.

Locations:

1. 3 miles EN of Colonet Island by North Harbour

Gus Dalton
SKIPPER

NOTE: Depth and Temperature Recorder Related to Each Tow to be Recorded Wherever Possible

APPENDIX C

Daily Operational Reports - M.V. St. Cecilia

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:	DAY	MONTH	YEAR
T1 = Danish Seine	2	February	1981
T2 =	PORT:	Trepassey	
T3 =	DEPARTURE:	February 2	
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED	ARRIVAL:	February 2	

Tow No.	Location	TIMES (GMT) Net Set	Dragged	Shot Hauled	Empty	Direction (°)	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
1													
2		2	-	2		N.E.	18			1400	West	Bad	Lost
3													
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

Using Danish Seine, botton no good for this type of fishing.

GEAR TECH.

Weights of Species & Weights in Pounds

Tow No.						
1	lbs	lbs	lbs	lbs	lbs	lbs
2	"	"	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. St. Mary's Bay

J. Tobin

SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:
T1 = Small Concord
T2 =
T3 =
NOTE: ONE COMPLETE TRAN OF EACH TRAWL NET NET BLD.

DAY	MONTH	YEAR
12	March	1981

PORT: Trepassey
DEPARTURE: March 12
ARRIVAL: March 14

	LOCATION OF TRAWL	TIMES (HR) NET SET	DRAGGED	HAULED	EMPTY	DIRECTION (°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1			1	1	1		18	120	375	1200	SW 10 Knots	Muddy	Nil
2													
3			1	1	1		18	12	375	1200	SW 10 Knots	Muddy	Nil
4													
5			"	"	"		"	"	"	"	"	"	"
6			"	"	"		"	"	"	"	"	"	"
7			"	"	"		"	"	"	"	"	"	"
8													
9													
10													

GEAR REMARKS:

GEAR TECH.

CATCH: Species & Weight in Pounds

1	lbs	lbs	lbs	lbs	lbs	lbs
2	"	"	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. St. Mary's Bay
2. St. Mary's Bay
3. St. Mary's Bay
4. St. Mary's Bay
5. St. Mary's Bay

J. Tobin

SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATES TO EACH [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:
T1 = Small Concord
T2 =
T3 =
NOTE: ONE COMPLETE MAN OF EACH TRAWL NET MUST BE

DAY	MONTH	YEAR
24	March	1981

PORT: Trepassey
DEPARTURE: March 24
ARRIVAL: March 28

TIMES (HRS)

LOCATION	SET	DRAGGED	HAULED	EMPTY	DIRECTION	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1	5	5	5			18	120	375	1200	NE 15	Muddy	Nil
2	5	5	5			18	120	375	1200	NE 20	Muddy	Nil
3	5	5	5			18	120	375	1200	NE 15	Muddy	Nil
4	4	4	4			18	120	375	1200	NE 15	Muddy	Nil
5	3		3			18	120	375	1200	-	Muddy	Nil

GEAR REMARKS:

GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

	Flounder	Red Fish			
1	4,000 LBS	8,000 LBS	LBS	LBS	LBS
2	3,000 "	8,000 "	"	"	"
3	1,000 "	6,000 "	"	"	"
4	2,000 "	5,000 "	"	"	"
5	"	"	"	"	"
6	"	"	"	"	"
7	"	"	"	"	"
8	"	"	"	"	"
9	"	"	"	"	"
10	"	"	"	"	"
	10,000 LBS	27,000 LBS	LBS	LBS	LBS

Locations:

1. St. Mary's Bay
2. St. Mary's Bay
3. St. Mary's Bay
4. St. Mary's Bay
5. St. Mary's Bay

J. Tobin
SKIPPER

NOTE: DATED AND NUMBERED LOGGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER AVAILABLE

Department of Fisheries

Experimental Commercial Fishing

Motor Vessel ST. CECILIA

TIMES (HS)

	Tow No.	Net Set	Dragged	Shot	Hauled	Empty	Position(s)	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
1			6	6	6			18	45	375	1200	SW 15	Fair	Nil
2			6	6	6			18	32	375	1200	SW 15	Fair	Nil
3			5	5	5			18	55	375	1200	SW 18	Fair	Nil
4														
5														
6														
7														
8														
9														
10														

Trawl Type Code:
T1 = Small Concord
T2 =
T3 =
NOTE: ONE COMPLETE MAN OF EACH TRAWL NET NEEDED

Day	Month	Year
8	April	1981

Port: Trepassey
Departure: April 8
Arrival: April 12

Gear Remarks:

Gear Tech.

Catches: Species & Weights in Pounds

	Cod	Flounder	Ass			
1	1,000 lbs	1,000 lbs	lbs	lbs	lbs	lbs
2	1,000 "	1,340 "	-"	-"	-"	-"
3	- "	4,000 "	-"	-"	-"	-"
4	"	- "	-"	-"	-"	-"
5	"	- "	-"	-"	-"	-"
6	"	- "	-"	-"	-"	-"
7	"	- "	-"	-"	-"	-"
8	"	- "	-"	-"	-"	-"
9	"	- "	"	-"	-"	-"
10	"	- "	-"	-"	-"	-"
	1,000 lbs	6,340 lbs	lbs	lbs	lbs	lbs

Locations:

1. Lambs Rock
2. Lambs Rock
3. Lambs Rock

J. Tobin

Skipper

NOTE: Dated and Numbered Echograph Related to Each Tow To Be Submitted Wherever Possible

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:	DAY	MONTH	YEAR
T1 = Small Concord	24	April	1981
T2 =	PORT:	Trepassey	
T3 =	DEPARTURE:	April 24	
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET FIELDED.	ARRIVAL:		

NET NO. / LOCATION	TIMES (HR) NET SET	DRAGGED	SURFACED	EMPTY	DIRECTION(S)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
STEAMING TO CATALINA, NO FISH.												

GEAR REMARKS:

Lost trawl, no fish, had to return to St. John's.

GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

Lbs	Lbs	Lbs	Lbs	Lbs	Lbs
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
"	"	"	"	"	"
Lbs	Lbs	Lbs	Lbs	Lbs	Lbs

J. Tobin

SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RECORD TO EACH TOW TO BE SUBMITTED WHENEVER [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:	DAY	MONTH	YEAR
T1 = Small Concord	14	May	1981
T2 =	PORT:	Trepassey	
T3=	DEPARTURE:	May 14th	
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED	ARRIVAL:	May 17th	

TIMES (HS)

LOCATION	NET SET	DRAGGED	HAULED	EMPTY	DIRECTION(°)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1	6	6	6			18	60	375	1200	W. 15	Good	Nil
2	7	7	7			18	60	375	1200	W. 18	Good	Nil
3 RETURNED WITH ENGINE TROUBLE.												
4												
5												
6												
7												
8												
9												
10												
11												

GEAR REMARKS:

GEAR TECH.

CATCHES & WEIGHT IN POUNDS

	Total					
1	6,000 lbs	6,000 lbs	lbs	lbs	lbs	lbs
2	5,000 "	5,000 "	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
11	11,000 lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. North Edge
2. North Edge

J. Tobin

SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER POSSIBLE

DEPARTMENT OF [illegible]

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:
T1 = Small Concord
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED.

DAY	MONTH	YEAR
20	May	1981

PORT: Trepassey
DEPARTURE: May 20
ARRIVAL: May 22

	LOCATION OF TRAWL	NET SET	DRAGGED	HAULED	EMPTY	COLLECTION (#)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
1													
2			5	5	5		18	80	375	1200	SW 18	Fair	Nil
3			6	6	6		18	80	375	1200	SW 15	Fair	Nil
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

GEAR TECH.

CATCH: Species & Weight in Pounds

		Redfish					
1	[illegible]	6,000 lbs	lbs	lbs	lbs	lbs	lbs
2	6,000 "	7,000 "	"	"	"	"	"
3	"	"	"	"	"	"	"
4	"	"	"	"	"	"	"
5	"	"	"	"	"	"	"
6	"	"	"	"	"	"	"
7	"	"	"	"	"	"	"
8	"	"	"	"	"	"	"
9	"	"	"	"	"	"	"
10	"	"	"	"	"	"	"
	11,000 lbs	13,000 lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. North Edge
2. North Edge

J. Tobin
SKIPPER

NOTE: [illegible] Each and Numbered Echograph Related to Each Haul To Be Submitted Whenever [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:
T1 = Small Concord
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED.

DAY	MONTH	YEAR
26	May	1981

PORT: Trepassey
DEPARTURE: May 26th
ARRIVAL: May 30th

No. of Tow	Location	Net Set	Dragged	Hauled	Empty	Direction (°)	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
			7	7	7		18	90	375	1200	NW 10	Good	Nil
			5	5	5		18	40	375	1200	NW 15	Good	Nil
			6	6	6		18	38	375	1200	NW 15	Good	Nil
RETURNED THIS MORNING													

TIMES (HR)

GEAR REMARKS:

GEAR TECH.

Species & Weight in Pounds

Cod	Flounder					
6,000 lbs	5,000 lbs	lbs	lbs	lbs	lbs	lbs
4,000 "	6,000 "	"	"	"	"	"
2,000 "	7,000 "	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
"	"	"	"	"	"	"
12,000 lbs	18,000 lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. North Edge
2. North Edge
3. North Edge

J. Tobin
SKIPPER

NOTE: DATED AND NUMBERED PHOTOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER POSSIBLE

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL ST. CECILIA

TRAWL TYPE CODE:
T1 = Small Concord
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
10	June	1981

PORT: Trepassey
DEPARTURE: June 10
ARRIVAL:

LOCATION	TRAWL USED	NET SET	DRAGGED	HAULED	EMPTY	CONDITION(S)	DEPTH OF NET	LENGTH OF WARP	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
	T1 (HS)		5	5	5		18	120	375		W. 16	Muddy	Nil

GEAR REMARKS:

Returned to Trepassey, lost one trawl door.

GEAR TECH.

LOCATION	TRAWL USED	CATCH IN POUNDS					
		Hauled					
1		9,000 lbs	lbs	lbs	lbs	lbs	lbs
2	"	"	"	"	"	"	"
3	"	"	"	"	"	"	"
4	"	"	"	"	"	"	"
5	"	"	"	"	"	"	"
6	"	"	"	"	"	"	"
7	"	"	"	"	"	"	"
8	"	"	"	"	"	"	"
9	"	"	"	"	"	"	"
10	"	"	"	"	"	"	"
		9,000 lbs	lbs	lbs	lbs	lbs	lbs

Locations:

1. St. Mary's bay

J. Tobin
SKIPPER

NOTE: DATES AND PRINTED LOCATION REFER TO EACH

APPENDIX D

Daily Operational Reports - M.V. Gulf Stream

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

Motor Vessel GULF STREAM

TRAWL TYPE CODE:
T1 = 1C
T2 =
T3 =
NOTE: ON COMPLETION OF EACH TRAWL SET NET ID

DAY	MONTH	YEAR
11	May	1981

PORT: St. Anthony
DEPARTURE: 13:00 hrs.
ARRIVAL: 22:30 hrs.

SET	TIME (GMT) DRAGGED		DEPTH (FMS) EMPTY	SIZE TWINE (#)	LENGTH OF NET	LENGTH OF WARP	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
[illegible]	[illegible]	1500	.3	1520	225	5	21	25	1650	NW	Muddy	Nil
[illegible]	[illegible]	1630	1.2	1800	100	5	18	75	1750	NW	Muddy	Nil

GEAR REMARKS:

Gordon Brett
GEAR TECH.

[illegible]: Species & Weights in Pounds

R. Thomas Rose
SKIPPER

NOTE: [illegible] Depth and Bottom Echograph Recordings to Each Tow to be Submitted Where Available

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF STREAM

TRAWL TYPE CODE:
T1 = 1C
T2 =
T3 =
NOTE: ON COMPLETION OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
13	May	1981

PORT: St. Anthony
DEPARTURE: 1100 hrs.
ARRIVAL: 1930 hrs.

STATION	TIME SET	TIME DRAGGED	TIME HAULED	DEPTH START	DEPTH FINISH	DEPTH OF NET	LENGTH OF WARP	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
24												
W	1230	.25	1300	235	5	40	150	1600	SW	Rock	Nil	
20												
	1430	.0	1800	270	5	55	175	1700	SW	Rock	Nil	

GEAR REMARKS:

Gordon Rose
GEAR TECH.

SPECIES & WEIGHTS IN POUNDS

STATION	Pounds					
	20 lbs	lbs	lbs	lbs	lbs	
	10 "	"	"	"	"	
	"	"	"	"	"	
	"	"	"	"	"	

DEPARTMENT OF FISHERIES

EXPLORATORY COMMERCIAL FISHING

Motor Vessel GULF STREAM

TRAWL TYPE CODE:
T1 = IC
T2 =
T3 =
NOTE: ONE COMPLETE MAN OF EACH TRAWL SET NET USED

DAY	MONTH	YEAR
19	May	1981

PORT: St. Anthony
DEPARTURE: 0710
ARRIVAL: 1610

T1 S (HS)

TIME SET	TIME HAULED	DURATION	START LATITUDE	START LONGITUDE	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
24W 0400	1 05		130	5	55	175	1500	SE	Fair	Nil	
25W 0530	.25	054	270	5	70	225	1800	SE	Rock	Nil	Hooked Bottom
21W 0630	1	07	235	5	76	225	1800	SE	Fair	Nil	Hooked Bottom
24W 0830	1.5	100	55	5	50	175	1850	NW	Good	Nil	Hooked Bottom

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF STREAM

TRAWL TYPE CODE:
T1 = IC
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
20	May	1981

PORT: St. Anthony
DEPARTURE: 1300 hrs.
ARRIVAL: 2230 hrs.

TIMES (HRS)

STATION	NET SET	DRAGGED	HAULED	DIRECTION(S)	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
	22W 1400	1.5	15	Empty	130 5	55	175	1700	W	Mud	Nil
	18W 1630		19		350 5	55	175	1750	W	Mud	Nil

GEAR REMARKS:

Gordon Brett
GEAR TECH.

CATCH: Species & Weight in Pounds

	Flounder					
	100 lbs	lbs	lbs	lbs	lbs	lbs
	50 "	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

R. Thomas Rose
SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATED TO EACH TRAWL TO BE COMPLETED WHENEVER POSSIBLE

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF STREAM

TRAWL TYPE CODE:
T1 = IC
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED

DAY	MONTH	YEAR
21	May	1981

PORT:

DEPARTURE: 0600
ARRIVAL: 1200

TIMES (HRS)

GEOGRAPHICAL LOCATION		SET	DRAGGED	HAULED	CATCH EMPTY	CATCH FULL	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
	46"W	0[illegible]	1.0	0920	Nil	150	5	55	175	1800	NE	Mud	Nil
		[illegible]											
		1015	1.0	1100	Nil	100	5	30	100	1800	NE	Mud	Nil
	28"W	1[illegible]	1.5	1400	50	225	5	80	275	1750	Nil	Mud	Nil
	37"W	1[illegible]	.25	1515	Nil	200	5	55	200	1800	West	Rock	Nil
	34"W	1[illegible]	1.5	1730	100	350	5	55	175	1800	West	Mud	Nil
		183[illegible]	.25	1900	Nil	90	3	70	225	1800	NE	Mud	Nil

GEAR REMARKS:

Fishing Very Good.

Gordon Rees
GEAR TECH.

[illegible] IN POUNDS

1	115	[illegible]	115	115	1[illegible]	115
2	"	Nil	"	"	"	"
3	"	40	"	"	"	"
4	"	Nil	"	"	"	"
5	"	100	"	"	"	"
6	"	Nil	"	"	"	"
7			"	"	"	"
8			"	"	"	"
9			"	"	"	"
10			"	"	"	"
			115	115	115	115

R. Thomas Ross
SKIPPER

NOTE: [illegible] Log Sheet Is Required To Be Completed [illegible]

DEPARTMENT OF [illegible]

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF STREAM

TRAWL TYPE CODE:
T1 = 19
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET MUST BE

DAY	MONTH	YEAR
23	May	1981

PORT: St. Anthony
DEPARTURE: 0710
ARRIVAL: 1610

TIMES (EST)

STATION	SET	DRAGGED	HAULED	DEPTH (FATHOMS) EMPTY	DEPTH (FATHOMS) LOADED	LENGTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL JANESE
21"W	08[illegible]	.25	0840	30	130	5	80	250	1800	SW	Mud	Nil
24W	09[illegible]	.25	0940	30	225	5	80	275	1800	SW	Mud	Nil
21"W	1[illegible]	.75	1300	50	130	5	80	275	1800	SW	Mud	Nil
24W	14[illegible]	.4	14[illegible]	30	50	5	80	275	1800	SW	Mud	Nil

GEAR REMARKS:

Hooked Bottom
Hooked Bottom
Hooked Bottom
Hooked Bottom

GEAR TECH.

[illegible] BY CATCH IN POUNDS

STATION	FLOUNDER					
[illegible]	[illegible]	[illegible]	lbs	lbs	lbs	lbs
[illegible]	[illegible]	[illegible]	"	"	"	"
[illegible]	[illegible]	[illegible]	"	"	"	"
[illegible]	[illegible]	[illegible]	"	"	"	"
			"	"	"	"
			"	"	"	"
			"	"	"	"
			"	"	"	"
			"	"	"	"
			"	"	"	"
			"	"	"	"
			lbs	lbs	lbs	lbs

R. Thomas Rose
SKIPPER

NOTE: DATA AND SUPPORTED LOGGERS RELATED TO EACH TOW TO BE [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF ST AM

TRAWL TYPE CODE:
T1 = 1C
T2 =
T3 =
NOTE: ONE COMPLETE PAIR OF EACH TRAWL NET MUST BE

DAY	MONTH	YEAR
26	May	1981

PORT: St.Anthony
DEPARTURE: 0700 hrs.
ARRIVAL: 2000 hrs.

TIMES (HS)

POSITION OF SET		TIME SET	TIME DRAGGED	SPEED	EMPTY	DIRECTION	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
00'S	22'W	0930	.5	1015		250	5	70	250	1800	Nil	Sand	Nil
58'S	19'W	104	1.0	1200		50	5	74	250	1800	SW	S&Mud	Nil
00'S	21'W	1300	.25	1330		270	5	70	250	1800	SW	S&Mud	Nil
58'S	17'W	1350	1.0	1505		095	5	75	250	1800	S	S&Mud	Nil
59'S	16'W	1530	.5	1615		030	5	60	200	1800	SE	S& Mud	Nil
0.'S	16'W	164	.5	1730		260	5	65	200	1800	SE	S&Mud	Nil
01'S	18'W	1800	.5	1845		305	5	80-40	250-150	1800	NE	S&Mud	Nil

SPECIES & WEIGHT IN POUNDS

	lbs		lbs		lbs	lbs	lbs
.1	"	Nil	"		"	"	"
5	"	200	"		"	"	"
44	"	200	"		"	"	"
41	"	150	"		"	"	"
44	"	150	"		"	"	"
41	"	150	"		"	"	"
	"		"		"	"	"
	"		"		"	"	"
	"		"		"	"	"
	lbs		lbs		lbs	lbs	lbs

GEAR REMARKS:

Good towing on the bottom, gear not working properly, doors towing too much on brackets, net not opening wide enough.
R.T.R.
R.T.R.

Gordon Brett
GEAR TECH

R. Thomas Rose
SKIPPER

NOTE: DATED AND ANNOTATED ECHOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER [illegible]

Department of Fisheries

Experimental Commercial Fishing

Motor Vessel GULF [illegible]PEARL

TRAWL TYPE CODE:
T1 = IC
T2 =
T3 =
NOTE: ONE COMPLETE TRAN OF EACH TRAWL NET MUST BE

DAY	MONTH	YEAR
30	May	1981

PORT: St. Anthony
DEPARTURE: 0530
ARRIVAL: 1700

TRAWLS (HS)

	Position of Vessel at Start of Set		Time Net Set	Time Dragged	Time Hauled	Depth Location (F)	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wire Direction or Scale	Bottom Type	Trawl Damage
1	49°	13'W	0300	.6	0800	235	5	70	225	1800	Nil	S & M	Nil
2	48°	15'W	081	.3	090	20	5	75	225	1800	Nil	M & R	Litt l
3	51°	16'W	1100	1.0	1120	290	5	75	225	1800	East	M & S	Nil
4	51°	18'W	124	.6	1350	190	5	71	225	1800	NE	M & S	Nil
5	48°	17'W	1400	.5	144'	240	5	80	225	1800	NE	M & S	Nil
6													
7													
8													
9													
10													

GEAR REMARKS:

Gerald Brett
GEAR TECH.

[illegible] Species & Weights in Pounds

1	[illegible]	300 lbs	lbs	lbs	lbs	lbs	lbs
2	11 "	100 "	"	"	"	"	"
3	30 "	400 "	"	"	"	"	"
4	18 "	200 "	"	"	"	"	"
5	5 "	100 "	"	"	"	"	"
6		"	"	"	"	"	"
7	"	"	"	"	"	"	"
8	"	"	"	"	"	"	"
9	"	"	"	"	"	"	"
10	"	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs	lbs

K. Thomas Rose
SKIPPER

NOTE: DATED AND SIGNED LOGGRAPH RELATED TO EACH TOW TO BE [illegible]

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF STREAM

TRAWL TYPE CODE:
T1 = IC
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NUMBERED

DAY	MONTH	YEAR
2	June	1981

PORT: St. Anthony
DEPARTURE: 0430 hrs.
ARRIVAL: 1230 hrs.

TIMES (HS)

No. of Trawl Location		Net Set	Dragged	Hauled	Empty	Direction (°)	Depth of Net	Depth of Water	Warp Length	Engine RPM	Wind Direction & Scale	Bottom Type	Trawl Damage
1	16° 23W	0600	.5	0650		210	5	75	225	1900	SW	S & M	Nil
2	12° 23W	0720	.75	0815		240	5	70	225	1900	NW	S & M	Nil
3													
4													
5													
6													
7													
8													
9													
10													

GEAR REMARKS:

Gordon Breen
GEAR TECH.

CATCH: SPECIES & WEIGHT IN POUNDS

	Flounder					
1	Lbs 50	Lbs	Lbs	Lbs	Lbs	Lbs
2	Lbs 50	"	"	"	"	"
3	"	"	"	"	"	"
4	"	"	"	"	"	"
5	"	"	"	"	"	"
6	"	"	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	Lbs	Lbs	Lbs	Lbs	Lbs	Lbs

R. Thomas Rose
SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RECORD TO EACH TOW TO BE SUBMITTED WHENEVER TECHNICAL

DEPARTMENT OF FISHERIES

EXPERIMENTAL COMMERCIAL FISHING

MOTOR VESSEL GULF STREAM

TRAWL TYPE CODE:	DAY	MONTH	YEAR
T1 = IC	5	June	1981
T2 =	PORT:	St. Anthony	
T3 =	DEPARTURE:	0745 hrs.	
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET NEEDED	ARRIVAL:	2200 hrs.	

	LOCATION OF TOW	TIMES (HRS)			DIRECTION	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
		NET SET	DRAGGED	HAULED EMPTY								
1	26'W 55	24'W 10	.75	1110	255	4	68	200	1800	NE	Mud	Nil
2	27'W 55	26'W 114	1.0	1240	90	4.5	70	200	1850	NE	Mud	Nil
3	29'W 55	28'W 131	2.0	133	230	4	70	225	1850	NE	Mud	Nil
4	29'W 55	29'W 1500	1.0	1600	270	4	75	225	1850	NE	Mud	Nil
5	30'W 55	31'W 1620	1.0	1720	200	4	65	200	1850	NE	Mud	Nil
6	30'W 55	32'W 1750	1.0	1810	380	4	75	225	1850	NE	Mud	Nil
	31'W 55	34'W										

GEAR REMARKS:

Door hooked bottom

Hooked doors

Hooked doors

Hooked door in bottom

Gordon Breen
GEAR TECH.

SPECIES & WEIGHT IN POUNDS

1	50 lbs	500 lbs	lbs	lbs	lbs	lbs
2	100 "	200 "	"	"	"	"
3	50 "	200 "	"	"	"	"
4	20 "	50 "	"	"	"	"
5	50 "	100 "	"	"	"	"
6	100 "	300 "	"	"	"	"
7	"	"	"	"	"	"
8	"	"	"	"	"	"
9	"	"	"	"	"	"
10	"	"	"	"	"	"
	lbs	lbs	lbs	lbs	lbs	lbs

R. Thomas Rose
SKIPPER

NOTE: DATED AND NUMBERED ECHOGRAPH RELATED TO EACH TOW TO BE SUBMITTED WHENEVER [illegible]

DEPARTMENT OF [illegible]

EXPLORATORY COMMERCIAL FISHING

MOTOR VESSEL GULF [illegible] AREA

TRAWL TYPE CODE:
T1 = IC
T2 =
T3 =
NOTE: ONE COMPLETE PLAN OF EACH TRAWL NET USED

DAY	MONTH	YEAR
6	June	1981

PORT:
DEPARTURE: 0530 hrs.
ARRIVAL: 2200 hrs.

STATION	TIME SET	TIME DRAGGED	DISTANCE DRAGGED	DIRECTION	DEPTH OF NET	DEPTH OF WATER	WARP LENGTH	ENGINE RPM	WIND DIRECTION & SCALE	BOTTOM TYPE	TRAWL DAMAGE
[illegible]	31"N 09	.3	1000	[illegible]	[illegible]	4	72	200	1850	NE	Sand	Nil
[illegible]	24"N 104	1.25	1320	[illegible]	[illegible]	4	80	225	1850	NE	Sand	Nil

[illegible] SPECIES AND WEIGHTS IN POUNDS

	LBS		LBS		LBS
	LBS		LBS		LBS

GEAR REMARKS:

[illegible]
GEAR TECH.

R. Thomas Ross
SKIPPER

NOTE: DATA AND SUPPLIED BATHYGRAPH RELATED TO EACH [illegible] TO BE [illegible]

POOR

QUALITY

ORIGINAL